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REMARKS

Upon receipt of this response, the Examiner is respectfully requested to contact the undersigned representative of the Applicant to arrange a telephone interview concerning the inventive merits of this application.

Claims 13-15 and 18-24 are rejected, under 35 U.S.C. § 102(b), as being anticipated by Lamers '987. The Applicant acknowledges and respectfully traverses the raised anticipatory rejection in view of the following remarks.

Lamers '987 relates to a continuously variable transmission (CVT) having a variator (1, 2) and a multistep transmission (29, 30), an input shaft 17 and an output shaft 18. The CVT of Lamers '987 produces a forward drive as well as a reverse drive. As disclosed, during reverse drive "the output shaft 18 rotate[s] in a direction opposite to that of the input shaft 17" (column 3, lines 32-34). As can be seen in Fig. 1 of Lamers '987, during forward drive, the output shaft 18 and the forward shaft rotate in the same direction. That is, the specifically disclosed rotation of the input shaft 17 and the output shaft 18 are directly contrary to the presently claimed invention which requires, for forward drive, the input shaft and the output shaft to rotate in opposite rotational directions while, for reverse drive, the input shaft and the output shaft are required to rotate in the same rotational direction.

Additionally, there is a further difference relating to the utilization of both transmissions. The transmission according to Lamers '987 is provided for use in a vehicle with a standard structure, i.e., the main shafts (14, 13, 17, 18) are typically arranged in-line with the longitudinally axis of the vehicle for driving the rear wheels of the vehicle. Since the input shaft (14) of the transmission is in-line with the output shaft (18), with an intermediate continuously variable transmission having an input pulley shaft and an output pulley shaft arranged parallel to one another, it is necessary for Lamers '987 to have two sets of chain gears (10 and 11; 15 and 16). These two sets of chains add to the complexity, weight and cost of Lamers '987's drive arrangement. In the event that Lamers '987 did not include both sets of gears, it is respectfully submitted that the shafts would have different rotational directions than that which

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is specifically disclosed in the specification of Lamers '987 or, alternatively, the transmission would not meet the in-line structural requirements.

Contrary to the drive arrangement of Lamers '987, the present invention advantageously utilizes, in one embodiment, a continuously variable transmission with a variator having only one gear set (12) for reversing the rotational direction of the output shaft (8) of the multi-step transmission (4) when such drive is conveyed to the axial differential (9), as explained in the English language specification (page 2, paragraph [011]). That is, only a single spur gear set 12, rather than a double spur gear set, is required between the transmission and the rear-mounted axle differential as is conventional in the known prior art.

A still further distinction, between Lamers '987 and the presently claimed invention, can be seen in Fig. 1. According to this embodiment, the input shaft 17 enters the transmission from a first side of the transmission, i.e., on the left hand side of the clutches and the gearing, while the output shaft 18, on the other hand, exits from a second opposite side of the transmission, i.e., on the right hand side of the clutches and the gearing. This is contrary to the specifically recited limitations of the new claims 28 and 30 which recite that the multi-step transmission (4) has a first side and the input shaft 7 supplies drive to the first side and the output shaft 8 outputs drive from the first side of the multi-step transmission (4). Claim 28 further recites that the output shaft (8) is hollow and surrounds and is concentric with the input shaft (7). Such newly claimed features are believed to further distinguish the presently claimed invention from the in-line drive arrangement of Lamers '987.

Lastly, Lamers '987 in Fig. 1 discloses the input shaft 17 as having a single fixed sun gear 27. This specifically disclosed arrangement is contrary to new claim 27 which recites that the input shaft has two spaced apart fixed sun gears. Further, new claim 29 recites that the input shaft 5 of the variator 2, the input shaft 7 of the transmission 4 and the wheel axles 14 and 15 for the wheel are disposed side by side and parallel to one another. None of the above discussed newly claimed features is found in the in-line drive arrangement of Lamers '987.

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In order to emphasize further the above noted distinctions between the presently claimed invention and the applied art, the amended independent claim 13 of this application now recites the features of:

[a] continuously variable vehicle transmission (1).... wherein said input shaft (7) and said output shaft (8) rotate in opposite directions of rotation when said multi-step transmission (4) is operating in any of the at least two forward gears and said input shaft (7) and said output shaft (8) rotate in the same direction of rotation when said multi-step transmission (4) is operating in the at least one reverse gear. (Emphasis added).

Amended claim 25 of this application now recites the features of:

A continuously variable vehicle transmission (1) ... wherein an output shaft (6) of the variator is coaxial with the input shaft (7) of the multi-step transmission (4), and during operation of the multi-step transmission (4) in the at least two forward gears, the input shaft (7) and the output shaft (8) rotate in opposite directions of rotation, and, during operation of the multi-step transmission (4) in the at least one reverse gear, the input shaft (7) and the output shaft (8) rotate in the same direction of rotation. (Emphasis added).

Amended claim 26 of this application now recites the features of:

A continuously variable vehicle transmission (1) ... wherein the multi-step transmission (4) is a double planetary gear and, during operation of the multi-step transmission (4) in the at least two forward gears, the input shaft (7) and the output shaft (8) rotate in opposite directions of rotation, and, during operation of the multi-step transmission (4) in the at least one reverse gear, the input shaft (7) and the output shaft (8) rotate in the same direction of rotation, and the output shaft (8) of the multi-step transmission (4) supports a gear and an input to the axial differential (9) supports a gear which directly mates with the gear supported by the output shaft (8) so as to reverse the rotational direction of the driving power outputted from the multi-step transmission (4). (Emphasis added).

Such features are believed to clearly and patentably distinguish the presently claimed invention from all of the art of record, including the applied art.

Next, claims 16-17 and 25-26 are rejected, under 35 U.S.C. § 103(a), as being unpatentable over Lamers '987 in view of Ueda et al. '510. The Applicant acknowledges and respectfully traverses the raised obviousness rejection in view of the following remarks.

The Applicant acknowledges that the additional reference of Ueda et al. '510 may arguable related to the feature indicated by the Examiner in the official action. Nevertheless, the Applicant respectfully submits that the combination of the base reference of Lamers '987

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with this additional art still fails to in any way teach, suggest or disclose the above distinguishing features of the presently claimed invention. As such, all of the raised rejections should be withdrawn at this time in view of the above amendments and remarks.

If any further amendment to this application is believed necessary to advance prosecution and place this case in allowable form, the Examiner is courteously solicited to contact the undersigned representative of the Applicant to discuss the same.

In view of the above amendments and remarks, it is respectfully submitted that all of the raised rejection(s) should be withdrawn at this time. If the Examiner disagrees with the Applicant's view concerning the withdrawal of the outstanding rejection(s) or applicability of the Lamers '987 and/or Ueda et al. '510 references, the Applicant respectfully requests the Examiner to indicate the specific passage or passages, or the drawing or drawings, which contain the necessary teaching, suggestion and/or disclosure required by case law. As such teaching, suggestion and/or disclosure is not present in the applied references, the raised rejection should be withdrawn at this time. Alternatively, if the Examiner is relying on his/her expertise in this field, the Applicant respectfully requests the Examiner to enter an affidavit substantiating the Examiner's position so that suitable contradictory evidence can be entered in this case by the Applicant.

In view of the foregoing, it is respectfully submitted that the raised rejection(s) should be withdrawn and this application is now placed in a condition for allowance. Action to that end, in the form of an early Notice of Allowance, is courteously solicited by the Applicant at this time.

The Applicant respectfully requests that any outstanding objection(s) or requirement(s), as to the form of this application, be held in abeyance until allowable subject matter is indicated for this case.

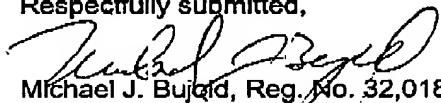
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Respectfully submitted,



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